

REMARKS

Favorable reconsideration of the application is respectfully requested in light of the amendments and remarks herein.

Upon entry of this amendment, claims 1, 2, 4-8, 10-15, 17-20, and 22-33 will be pending. By this amendment, claim 16 has been canceled; and claims 1, 5, 7-8, 12-13, 19, 22, 24, 29, and 33 have been amended. No new matter has been added.

§103 Rejection of Claims 1-2, 4-6, 10-11, 16, 19-20, 22, 24, 29-31 and 33

In Section 2 of the Final Office Action of June 7, 2007 (“the Office Action”), claims 1-2, 4-6, 10-11, 16, 19-20, 22, 24, 29-31, and 33 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kotzin (U.S. Patent Publication No. 2004/0204076) in view of Bahl *et al.* (U.S. Patent Publication No. 2004/0204071; hereinafter referred to as “Bahl”).

In the Background section of the Specification, it is stated:

Some wireless devices provide multiple interfaces for communication. For example, a wireless device may include a PAN interface (personal area network) and a wireless LAN interface (local area network), such as Bluetooth and Wi-Fi (e.g., IEEE 802.11.b). When a user of such a multiple interface device wants to communicate with a user of another device, the user typically manually determines what common interface is available, such as by directly talking with the second user. After determining the common interface, the users typically manually configure the devices to establish a connection for communication. To change or end the connection, the users again manually adjust the configuration of the devices. While the users have been able to establish communication, for some users the manual configuration and control may prove difficult.

Background of the Specification, Paragraph [0001].

Therefore, the Background highlights the need to automatically detect and determine a connection for communication. Further, the Background stresses the need for multiple interfaces having multiple speeds, ranges, and routes of connections.

To achieve the above-stated objectives, embodiments of the present invention provide for interface negotiation for selecting an appropriate communication interface having a specific speed, range, or route of connection. For example, the wireless device for interface negotiation, as recited in amended claim 1, includes:

a wireless interface supporting communication across a wireless connection;

a first communication interface for providing short range wireless interfaces;

a second communication interface for providing one of medium range wireless interface and wired interface; and

a controller connected to said wireless interface supporting a negotiation service and a communication service;

wherein said negotiation service provides interface negotiation for using said wireless interface to negotiate with another device to select an appropriate communication interface for communication of data with said another device,

wherein said negotiation service selects one of: (1) said first communication interface for direct communication between the wireless device and said another device, and (2) said second communication interface for indirect communication through a network,

wherein said first communication interface is a separate interface from said wireless interface used for interface negotiation, and

wherein said communication service provides control and management of communication with said another device across a connection established using said negotiation service, and

wherein a first connection opened using said negotiation service and said wireless interface is kept open while a second connection opened using said communication service and one of said first communication interface and said second communication interface is open.

(emphasis added)

Accordingly, claim 1 includes at least three interfaces: *a wireless interface* supporting communication across a wireless connection; *a first communication interface* for providing short range wireless interfaces; *a second communication interface* for providing one of medium range wireless interface and wired interface. Claim 1 further includes *a controller* connected to the wireless interface supporting a negotiation service and a communication service, *wherein* the negotiation service selects one of: (1) the first communication interface for direct communication between the wireless device and another device, and (2) the second communication interface for indirect communication through a network. These limitations are described in the Specification, where “[i]n the network environment 100 shown in FIG. 1, the wireless devices 105 and 110 can establish connections for direct communication using the short-range wireless interfaces 115 and 130 or the medium-range wireless interfaces 120 and 135. The wireless devices 105 and 110 can also establish connections for indirect communication through a network 140 using the medium-range wireless interface 120 of the first wireless device 105 and either the medium-range wireless interface 135 or the wired interface 125 of the second wireless device 110. As described below, the wireless devices 105 and 110 can use the short-range wireless interfaces 115 and 130 to initially establish communication and negotiate how to proceed with further communication. For example, the wireless devices 105 and 110 may agree to use a connection through the network 140, where the first wireless device 105 establishes a connection to the network 140 using the medium-range wireless interface 120 to connect to a wireless access point

of the network 140 and the second wireless device 110 establishes a connection to the network 140 through the wired interface 125.” *Specification, Paragraph [0015] (emphasis added).*

By contrast, Kotzin states in Paragraphs [0013] and [0014] that “[t]he portable subscriber device 103 is arranged and constructed to augment and facilitate interfacing to and from the portable subscriber device via facilities of one or more external devices. The device 103 includes the antenna 205 that operates to radiate and absorb or receive radio frequency signals that are transmitted or sent from or received by a wide area network (WAN) transceiver 203 of the subscriber device as is known. The transceiver 203 interactively operates with a controller 207 or processor 208 portion thereof to provide to or accept or receive from the controller 207, messages or signals corresponding thereto so as to interact with the WAN in order to support services, such as phone calls or data messages, for a user of the device as is also known. The controller 207 or processor 208 is coupled to and operates together with a local area or LAN transceiver 209, a user interface 211 via I/O port 213, including a keyboard 215, a display 217, a speaker 219, and a microphone 221 to effect the user interface, and optionally, via the I/O port 213, a NIC 223 or modem 225 suitable for establishing a wired interface to the portable device. ... The LAN transceiver 209 is a known local area transceiver that is used to locate external devices and to establish links with appropriate such external devices.”

Thus, Kotzin merely discloses a portable device including a WAN transceiver and a LAN transceiver. Kotzin fails to teach, suggest, or disclose having at least three interfaces: a wireless interface supporting communication across a wireless connection; a first communication interface for providing short range wireless interfaces; a second communication interface for providing one of medium range wireless interface and wired interface, wherein the negotiation service selects one of: (1) the first communication interface for direct communication between

the wireless device and another device, and (2) the second communication interface for indirect communication through a network.

Bahl states in Paragraph [0012] that “the present invention includes protocol preference negotiation between the two wireless devices to select an acceptable wireless protocol for use between them.” Thus, Bahl discloses a single wireless interface but allowing negotiation for selecting a protocol from multiple wireless protocols. The Merriam-Webster dictionary defines “protocol” as “a set of conventions governing the treatment and especially the formatting of data in an electronic communications system”. Therefore, Bahl provides software compatibility among multiple protocols to communicate with each other by formatting of data across the same connection.

However, the Merriam-Webster dictionary defines “interface” as “the place at which independent and often unrelated systems meet and act on or communicate with each other”. Thus, the term “interface” refers to hardware. Accordingly, it is submitted that multiple “interfaces” disclosed in claim 1 refer to multiple hardware connections with multiple speeds, ranges, and routes which can be selected by the negotiation service to provide flexible communication.

Therefore, it is submitted that Bahl also fails to teach, suggest, or disclose having at least three interfaces: a wireless interface supporting communication across a wireless connection; a first communication interface for providing short range wireless interfaces; a second communication interface for providing one of medium range wireless interface and wired interface, wherein the negotiation service selects one of: (1) the first communication interface for direct communication between the wireless device and another device, and (2) the second communication interface for indirect communication through a network.

Accordingly, Kotzin and Bahl, individually or in combination, fail to teach, suggest, or disclose all limitations of claim 1 including having at least three interfaces: a wireless interface supporting communication across a wireless connection; a first communication interface for providing short range wireless interfaces; a second communication interface for providing one of medium range wireless interface and wired interface, wherein the negotiation service selects one of: (1) the first communication interface for direct communication between the wireless device and another device, and (2) the second communication interface for indirect communication through a network.

Based on the foregoing discussion, claim 1 should be allowable over Kotzin and Bahl. Other independent claims 19, 29, and 33, as amended, include similar limitations of having at least three interfaces: a wireless interface supporting communication across a wireless connection; a first communication interface for providing short range wireless interfaces; a second communication interface for providing one of medium range wireless interface and wired interface, wherein the negotiation service selects one of: (1) the first communication interface for direct communication between the wireless device and another device, and (2) the second communication interface for indirect communication through a network. Therefore, claims 19, 29, and 33 should also be allowable over Kotzin and Bahl. Since claims 2, 4-6, 10-11, 20, 22, 24, and 30-31 depend from one of claims 1, 19, and 29, claims 2, 4-6, 10-11, 20, 22, 24, and 30-31 should also be allowable over Kotzin and Bahl. Claim 16 has been canceled.

Accordingly, it is submitted that the rejection of claims 1-2, 4-6, 10-11, 16, 19-20, 22, 24, 29-31, and 33 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§103 Rejection of Claim 7

In Section 3 of the Office Action, claim 7 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kotzin in view of Bahl and further in view of Janik. (U.S. Patent Publication No. 2004/0253945).

Based on the foregoing discussion regarding independent claim 1, and since claim 7 depends from claim 1, claim 7 should be allowable over Kotzin and Bahl. Further, Janik is merely cited for teaching that “a LAN provides a higher data rate than a WAN.” *Section 3, page 9 of the Office Action*. Therefore, Kotzin, Bahl, and Janik, individually or in combination, fail to teach, suggest, or disclose all limitations of claim 7.

Accordingly, it is submitted that the rejection of claim 7 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§103 Rejection of Claim 8

In Section 4 of the Office Action, claim 8 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kotzin in view of Bahl, and further in view of Moon *et al.* (U.S. Patent Publication No. 2005/0076054; hereinafter referred to as “Moon”).

Based on the foregoing discussion regarding independent claim 1, and since claim 8 depends from claim 1, claim 8 should be allowable over Kotzin and Bahl. Further, Moon is merely cited for teaching that “a second communication interface uses more power than a wireless interface”. *Section 4, page 10 of the Office Action*. Therefore, Kotzin, Bahl, and Moon, individually or in combination, fail to teach, suggest, or disclose all limitations of claim 8.

Accordingly, it is submitted that the rejection of claim 8 based upon 35 U.S.C. §103(a)

has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§103 Rejection of Claims 12, 14-15, 17-18, 25, 27-28 and 32

In Section 5 of the Office Action, claims 12, 14-15, 17-18, 25, 27-28 and 32 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kotzin in view of Bahl, and further in view of Shah *et al.* (U.S. Patent Publication No. 2004/0023652; hereinafter referred to as “Shah”).

Based on the foregoing discussion regarding independent claims 1, 19, and 29, and since claims 12, 14-15, 17-18, 25, 27-28, and 32 depend from one of claims 1, 19, and 29, claims 12, 14-15, 17-18, 25, 27-28, and 32 should be allowable over Kotzin and Bahl. Further, Shah is merely cited for teaching that “the negotiation service selects a communication interface without user input”. *Section 5, page 11 of the Office Action*. Therefore, Kotzin, Bahl, and Shah, individually or in combination, fail to teach, suggest, or disclose all limitations of claims 12, 14-15, 17-18, 25, 27-28, and 32.

Accordingly, it is submitted that the rejection of claims 12, 14-15, 17-18, 25, 27-28 and 32 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§103 Rejection of Claim 23

In Section 6 of the Office Action, claim 23 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kotzin in view of Bahl, and further in view of Carlton *et al.* (U.S. Patent Publication No. 2005/0141450; hereinafter referred to as “Carlton”) and in further view of Moon.

Based on the foregoing discussion regarding independent claim 19, and since claim 23 depends from claim 19, claim 23 should be allowable over Kotzin, Bahl, and Moon. Further, Carlton is merely cited for teaching “a communication criteria that includes data rate”. *Section 6, page 14 of the Office Action*. Therefore, Kotzin, Bahl, Moon, and Carlton, individually or in combination, fail to teach, suggest, or disclose all limitations of claim 23.

Accordingly, it is submitted that the rejection of claim 23 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§103 Rejection of Claim 26

In Section 7 of the Office Action, claim 26 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kotzin in view of Bahl, and further in view of Ahonen *et al.* (U.S. Patent Publication No. 2005/0085188; hereinafter referred to as “Ahonen”).

Based on the foregoing discussion regarding independent claim 19, and since claim 26 depends from claim 19, claim 19 should be allowable over Kotzin and Bahl. Further, Ahonen is merely cited for teaching that “the communication mode indicates a type of encryption to use for the communication connection”. *Section 7, page 15 of the Office Action*. Therefore, Kotzin, Bahl, and Ahonen, individually or in combination, fail to teach, suggest, or disclose all limitations of claim 26.

Accordingly, it is submitted that the rejection of claim 26 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

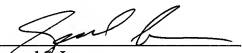
Conclusion

In view of the foregoing, Applicants respectfully request reconsideration of claims 1, 2, 4-8, 10-15, 17-20, and 22-33 in view of the remarks and submit that all pending claims are presently in condition for allowance.

In the event that additional cooperation in this case may be helpful to complete its prosecution, the Examiner is cordially invited to contact Applicants' representative at the telephone number written below.

Respectfully submitted,
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